

Knowledge on Learning Disabilities Among Primary School Teachers of Selected Schools in Municipality of Morang

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Abstract

INTRODUCTION

Educational performance of children with learning disabilities are impressively not satisfactory as what is expected from them, ultimately that has a lifelong impact on the children affecting academic performances, interpersonal relationships, prospects for employment, marital life in later stage etc. Primary school teachers play a very important role in early recognition of learning disabilities, and contribute in the promotion of mental health of children. The objectives of the study are to assess knowledge on learning disabilities among primary school teachers of Letang Municipality, Morang and to find out the association between level of knowledge and selected demographic variables.

METHODOLOGY

Descriptive cross-sectional study among primary school teachers was carried out in selected government and private schools of Letang Municipality, Morang. Study populations for the study were primary school teachers, both male and female, who were teaching up to grade five. Proportionate sampling technique was used to select participants from both public and private schools. Self-administered, structured questionnaire was used for data collection. Analysis was done in SPSS version 20.0. Descriptive statistics and inferential statistics (chi-square test) used to find the association between level of knowledge and selected demographic variables.

RESULT

Among 120 respondents, more than half 65.8% had

moderately adequate knowledge, 32.5% had inadequate knowledge and only 1.7% had adequate knowledge on learning disabilities and there was no association between teacher's level of knowledge on learning disabilities and demographic variables.

CONCLUSION

The study concluded that more than half of the respondents have average knowledge on learning disabilities. There was no association between age, sex, teaching experience, types of school and training.

KEYWORDS

Knowledge, Learning Disabilities and Primary School Teacher

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INTRODUCTION

Disability is an umbrella term, covering impairments, activity limitations, and participation restrictions. Disability is thus not just a health problem, it is a complex phenomenon.¹

Learning disabilities are due to genetic and/or neurobiological factors that alter brain functioning in a manner which affects one or more cognitive processes related to learning. These processing problems can interfere with learning basic skills such as reading, writing and/or math.²

Specific learning disorder (often referred to as a learning disorder or learning disability) is a neuro-developmental disorder that begins during school-age, although may not be recognized until adulthood. Learning disabilities refers to ongoing problems in one of three areas, reading, writing and math, which are foundational to one's ability to learn.³

A learning disability is simply not a problem of intelligence or judgment but is alteration in the brain function as obtaining information, interpretation and transfer of received information.⁴ It is a heterogeneous group of disturbances in the acquisition of learning skills in one or more of the basic psychological processes of understanding or in using language, speaking or writing, that leads to the overall manifestation in compromising the ability to listen, think, speak, read, write, spell, or do mathematical calculations.⁵

An estimated 5 to 15 percent of school-age children struggle with a learning disability in the world and 80 percent of those with learning disorders have reading disorder in particular. Other neuro developmental disorders like attention deficit hyperactive disorders as well as anxiety are the highly present as a comorbidity of specific learning disabilities.³

There are certain common learning disabilities such as difficulty in processing language (dyslexia); difficulty in solving mathematics problems, using money (dyscalculia); difficulty with handwriting, spelling, organising ideas (dysgraphia); poor hand-eye coordination, manual dexterity (dysparaxia); auditory processing disorder- difficulty in reading, comprehension, visual processing disorder-difficulty in reading.⁴

Despite having a normal intelligence quotient (IQ) with no other physical or psychological issues, these children educational performance are impressively not satisfactory as what is expected from them⁶ as they have a problem of attention deficit and cannot motivate them self of their own towards any task.⁴ This is very disappointing to children as they fail to accomplish their schooling and in the long run they tend to quit school early. Additionally, if their issues are not perceived and appropriate interventions are not given, the risk of developing disorders like depression, anxiety and misconduct increases.⁶

If these incapacities of children's are not marked or perceived or are overlooked, and if their needs are not met in regular classrooms with specialized curriculum inside the school, it is not possible to accomplish the priority of sustainable development goal (SDG) of universalization of primary education and equalization of educational opportunity.⁷

Teachers are very conscious agents who act as a liaison between available instructional resources and inborn individual differences of children.⁸ Though it is a very big challenge they play an important role in early diagnosis of learning disabilities as they only able to distinguish between normal students and learning disabled students.⁵

Early recognition of learning disabilities and adequate remediation are important and can make a big difference to a child's future. A child's personality is considerably influenced by the character and conduct of their surrounding peers and school teachers as teachers are role models of children and the teachers are in an ideal position to help families in early identification of problems and to provide appropriate guidance.⁹

A study done in Egypt revealed the data that 60.8% primary

school teachers have fair knowledge and only 25.4% have good knowledge.¹⁰ Similar findings found in study done in Saudi Arabia that 64.52% had only average knowledge about specific learning disabilities, and 35.48% of them had poor knowledge and none had good knowledge of learning disabilities.¹¹ Likewise only 5% of the participants (primary school teachers) had adequate overall knowledge about learning disabilities in Bangluru India.¹² A study done in primary school teachers of Dharan sub-metropolitan city, Nepal showed that 52.67% of the participants had moderately adequate knowledge, 47.33% had inadequate knowledge and none of them had adequate knowledge regarding learning disabilities.¹³

The number of children identified as learning disabled has increased greatly in recent years. The lack of knowledge on primary school teachers about identification of children with learning disabilities makes delay in referral and remediation which results in severe damage to their self-esteem and motivation which turnouts to emotional and behavioral problems; ultimately that has a lifelong impact on the child affecting academic performances, interpersonal relationships, prospects for employment and marriage.^{14,4}

In the context of Nepal, only few researches were done regarding learning disabilities and in that study area, information about level of knowledge on learning disabilities among teachers were nonexistent. It is very important to have knowledge on learning disabilities in primary school teacher because children spend more time with their school teachers, as teachers are in an ideal position to help families in early identification of problems and to provide appropriate guidance.⁹

Thus, the objectives of this research study are to assess the level of knowledge on learning disabilities among primary school teachers and to find out the association between knowledge and selected demographic variables.

MATERIAL AND METHODS

A Quantitative, descriptive cross-sectional design was used. There were 44 schools in Letang municipality of Morang district, among them 32 were government schools and 12 were private schools in which 19 schools were primary level schools and 25 were up to secondary level. Among total schools, 12 public and 6 private schools were selected randomly. Study populations were primary school teachers, both male and female, who were teaching up to grade five. Proportionate sampling technique was used to select participants from both public and private schools. The sample size was calculated based on prevalence of previous similar study⁷ Sample size was calculated using formula $n = Z^2 pq/d^2$.¹⁵ $Z = 1.96$ (5% level of significance) $P = 64.52\%$, $q = 35.48$, 9% allowable error was considered and 10% non-response rate was added in total calculated value. Data were collected from 120 respondents using structured questionnaire.

Research tool had two distinct parts. First part contained socio-demographic information. Second part is about

knowledge assessment questions developed by Ms. Padmavathy D.¹⁶ The reliability of the tool has 0.74 (Gutmann Split half method). It consists of 34 questions in seven dimensions like definition and cause, clinical manifestations, approaches to assessment, interventions and outcome etc. Each correct answer carried 1 mark. Level of knowledge was classified in good, average and poor as score categorized >75%, 50-75% and <50 % respectively. Questions were translated in to Nepali language and back translation was done by consulting with Nepali subject teacher. Pretesting of questionnaire was done before administration. Permission was taken through mail to use the tool.

Before data collection, permission was taken from Biratnagar Nursing Campus (Reference No. 512/075/076), written approval was taken from concerned authorities of schools. All the components of informed consent were explained and consent was taken from each respondent. Respondents were not forced by any means to participate in the study. They were given freedom to withdraw their participation at any time during the study. Confidentiality of information of all respondents was maintained throughout the study. Data was collected by the researchers herself 2019 June 2 to June 14. Each individual was provided 30 -35 minutes to response all the questions.

The collected data was analyzed through a software SPSS 20.0 version. Descriptive statistics (frequency, percentage, mean and standard deviation) was used to describe the findings and inferential statistics (chi-square test) was used to find the association between knowledge on learning disabilities and selected demographic variables.

RESULTS

The findings reveal that among 120 respondents, more than half (61.7%) respondents were female, 38.3% were of 20-29 years age and 55% were from Janajati ethnicity. Likewise, 51.7% respondent had completed their 12 class, 43.3% of them had up to five years teaching experiences. The percentage of the respondents working in government school were 52.5, and 50.8% respondents were participated in learning disabilities related training. Respondents said that their commonest source of information regarding learning disabilities was the course of their study. Majority (88.34%) had inadequate knowledge on Concepts and causes of learning disabilities and only 2.5% had adequate knowledge on Clinical manifestations of learning disabilities. Similarly, majority (84.2%) had moderately adequate knowledge on assessment approaches, 30% had adequate knowledge on interventions of learning disabilities and 33.33% had adequate knowledge on outcomes of learning disabilities. Likewise, more than half (65.8%) had average knowledge on learning disabilities. There was no any association between socio-demographic variables like age, sex, experience, work place and training.

Table 1: Knowledge on Learning Disabilities n=120

Variables	Frequency(f)	Percentage (%)
Concepts and Classifications:		
Category of Learning Disabilities		
Developmental Disorder	38	31.7
L.D is due to		
Neurological problem	6	5
L.D is also found in		
Conduct Disorder	3	2.5
Pervasive developmental Disorder	12	10
ADHD	32	26.7
In all of the above*	73	60.8
L.D is result of		
Poor motivation	78	65
Physical Health	14	11.7
Poor motivation	7	5.8
None of the above*	21	17.5
Common Cause		
Genetic	31	25.8
Most commonly in		
Boys	10	8.3
Chances in Siblings		
Disagree	76	63.3
Common type of L.D		
Reading disorder	22	18.3
Commonly manifested		
Academic problems	51	42.5
L.D constitute		
Defect in interpreting what they hear & see	14	61.7
Defect in sensory functions	5	4.2
Defect in all motor functions	1	0.8
All of the above*	40	33.3
IQ with L.D		
Average	62	51.7

*Correct response

Table 2: Knowledge on Specific Clinical Manifestations of Learning Disabilities n = 120

Variables	Frequency(f)	Percentage (%)
Reading disorder show		
Omitting words while reading	65	54.2
Writing disorder will trouble		
Remembering the dates, names etc	7	5.8
Mathematical disorder includes		
Difficulty calculations	58	48.3
Trouble in connecting letters with sounds		
Reading disorder	48	40
Excessive technical errors		
Writing disorder	102	85
Difficulty to read time from clock		
Mathematics disorder	73	60.8
Word Building is used in		
Spelling disorder	48	40

Table 3: Knowledge on Management of Learning Disabilities n = 120

Variables	Frequency(f)	Percentage (%)
Academic assessment	116	96.7
First person to detect L.D		
Teacher	114	95
More information can be gathered from		
Their parents	113	94.2
L.D could be seen in		
Attention Deficit Hyperactive Disorder	21	17.5
Initial stage manager of L.D		
Teacher	115	95.8
Teachers should be		
Caring	99	82.5
Remedial teaching for reading disorder		
Practice reading from simple to difficult levels	108	90
Outcome of interventions		
Improves after a period of 1 to 2yrs of interventions	83	69.2
Remedial help in early schools leads to		
Better school performance in later years	53	44.2
Source of information		
Course of Study	13	10.8
Experiences	4	3.3
Friends	2	1.7

Table 4: Scores on Knowledge Questionnaire n = 120

S.No.	Knowledge/ Domains	Max. Score	Attributes			Mean	S.D
			Good Knowledge	Average Knowledge	Poor Knowledge		
1	Concepts and causes	8	0	14(11.66%)	106(88.34%)	2.31	1.158
2	Clinical manifestations	10	3(2.5%)	58(44.33%)	59(49.17%)	4.62	1.391
3	Assessment Approaches	4	18(15%)	101(84.2%)	1(0.8%)	3.03	0.533
4	Interventions	10	36(30%)	81(67.5%)	3(2.5%)	6.72	1.291
5	Outcomes	2	40(33.33%)	56(46.7%)	24(20%)	1.13	0.721

Table 5: Level of Knowledge on Learning Disability n = 120

Level of Knowledge	Frequency (f)	Percentage (%)
Poor	39	32.5
Average	79	65.8
Good	2	1.7

DISCUSSION

The study revealed that out of 120 respondents, 38.3% were from the age group of 20-29 which is similar to the finding of the study Knowledge of Primary School Teachers in

Identifying Children with Learning Disabilities in Bangalore, India” in which 46.5% of the respondents were from 20-35 years age group.¹² Likewise, 61.7% respondents were female and 38.3% were male which is similar to the findings of the study done in Dharan, Nepal in which 61.3% of the respondents were female and 38.7% were male.¹³ It is also similar to Nepal Demographic and Health Survey finding i.e. 48.57% male and 51.46% female population in Nepal.¹⁷

The present study revealed that more than half (55%) of the respondents were Janajati which is contradictory to the National Population and housing census, 2011 which revealed that 36% population were Janajati.¹⁸ This contradiction may be due to research setting limited to one small area and small sample size of this study. In the present study, 51.7% were 12 class passed as primary teachers. Similarly, 43.3% of respondents had less than 5 years' experience in teaching which is similar to the study done in Mangalore, India in which 48% had up to 3 years experienced in teaching.¹⁷

Present study also revealed that only 50.8% respondents attended training on learning disabilities. But this result is comparatively more satisfactory than the study report published by National Centre for Special Studies (NASEC) which showed that only a few numbers of teachers received relevant trainings even though they were working in special school of intellectually and physically disabled children.¹⁸

The findings of present study show that teachers had poor knowledge on definition and causes of learning disabilities (2.31 mean value) which is similar to the study conducted in Saudi Arabia revealed mean value 1.11 on definition and causes of learning disabilities, it might be similar due to both researches were done on developing country's teachers who teaches up to primary level.⁹

This present study shows that majority of teachers had poor knowledge regarding the clinical manifestations (4.62 mean value) which is similar to the findings of the study conducted in Dharan on Knowledge on Learning Disabilities among Primary School Teachers revealed that 4.57 mean value on clinical manifestations of learning disabilities.¹³ This similarity might be due to similar setting and similar number of sample size.

In this study, primary teachers had good knowledge regarding approaches to assessment, interventions and outcomes for treating learning disabilities, with mean values of 3.03, 6.72 and 1.13 respectively which is supported by the study conducted in Saudi Arabia revealed 3.83 mean value on approaches to assessment, 5.43 mean value on interventions and 1.23 mean value on outcomes for treating learning disabilities.⁹

This study revealed that 65.8% respondents had average level of knowledge, 32.5% had inadequate knowledge and only 1.7% had good level of knowledge which is similar with the findings of the study done in Dharan, Nepal, in which more than half (52.67%) had moderately adequate knowledge and

47.33% had inadequate knowledge and none of them had adequate knowledge regarding learning disabilities.¹³ The present study is also supported by study conducted on the Kingdom of Saudi Arabia which revealed 64.52% had average knowledge about Learning Disabilities.⁹ Likewise, the study conducted on Mangalore, India had also similar findings to this study in which 64% had average knowledge, 30% had poor knowledge and only 6% had good knowledge regarding Learning Disability.¹⁹

Regarding association, this study revealed that there is no any significant association between socio-demographic variables (age, sex, teaching experience, academic qualification and training) which are coherence to the study conducted in Dharan and Amritsar.^{13,14}

CONCLUSION

The study concluded that more than half of the respondents had only average knowledge on learning disabilities. There was no association between age, sex, teaching experience,

types of school and training. Based on the study findings, it can be recommended to the division of education administration of concerned municipality to conduct periodic training and continuing education regarding identification and management of mentally disabled children and manage them appropriately. Training the teachers and regular monitoring can bring about accountability in the teachers which can enhance quality of life of needful children.

CONFLICT OF INTEREST

Researchers declare that there is no any conflict of interest.

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